Seminar Presentation

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What is version control and GIT?
How does it help team working?

By the end of this presentation youll know:

- What version control is
- What Git and GitHub are
- The essential Git commands
- How Git helps teams collaborate

What is version control

Version control is a system that tracks changes to files over time.

- See what changed
- See who changed it
- See when it was changed
- Go back to older or earlier versions

There are various tools to achieve this but the most common is Git.

What is Git

Git

Git is a version control system used to track changes in files over time.

To get started with Git you'll need to download and install it.

https://git-scm.com/install/

In a nutshell,

- ✓ Version control = concept/idea
- ✓ Git = tool
- ✓ Git works on your machine

Common Git commands

Common Git Commands

- git init
- git add
- git commit
- git log
- git status

git init

- Initializes git in your project
- creates an hidden .git folder

git add

- stages the changes we want to save.
- `git add <filename>` stages one specific file
- `git add .` Stages ALL changes in the project

```
git commit -m “<message>”
```

- this saves the selected changes
- message describes these changes

git log

- shows a history of your commits

git status

- shows whats going on in your project

What is Github ?

GitHub is a cloud platform for storing and collaborating on code.

- A website for your Git projects
- Keeps your code in the cloud
- Makes teamwork easier

To get started, create an account and set up a repository on GitHub.

https://github.com/

git push

- Uploads your local commits to github

There are various Git hosting platforms,

Github is the most commonly used

Once Git is **initialized**, your typical workflow becomes a cycle.

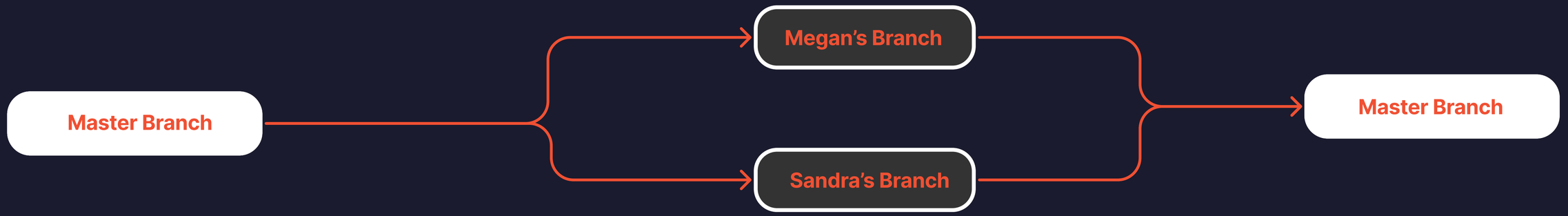
How does Git help teamwork

Teamwork

- Multiple developers can work at the same time.
- Git prevents accidental overwrites.
- Keeps a full history of the project.
- Teams can experiment safely.

git branch

- Allows parallel development


Master Branch
Megan's Branch
Sandra's Branch
Master Branch

Summary

- Version control tracks changes to files.
- Git is the tool that enables it.
- GitHub stores your Git projects online.
- Together, they enable efficient collaboration.

Questions

Thank You.

References

- https://git-scm.com/learn
- https://about.gitlab.com/topics/version-control/
- https://docs.github.com/en/get-started/start-your-journey/about-github-and-git